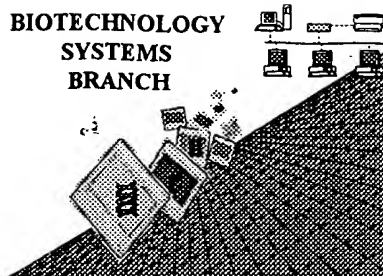


RAW SEQUENCE LISTING **ERROR REPORT**



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/627,165A
Source: 1600 Rush
Date Processed by STIC: 10/1/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

1653

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/627,165A

DATE: 10/01/2001

TIME: 14:01:51

Input Set : A:\seq.list.txt

Output Set: N:\CRF3\10012001\I627165A.raw

pp. 1-5

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: KIM, Jong-Bae
 5 <120> TITLE OF INVENTION: CRUDE EXTRACT FROM Viscum album coloratum, AND PROTEINS
 6 AND LECTINS ISOLATED THEREFROM
 8 <130> FILE REFERENCE: Korean Mistletoe Lectin
 10 <140> CURRENT APPLICATION NUMBER: 09/627,165A
 11 <141> CURRENT FILING DATE: 2000-07-27
 13 <160> NUMBER OF SEQ ID NOS: 16
 15 <210> SEQ ID NO: 1
 16 <211> LENGTH: 762
 17 <212> TYPE: DNA

18 <213> ORGANISM: Viscum album coloratum

20 <220> FEATURE:

22 <221> NAME/KEY: misc_feature

24 <400> SEQUENCE: 1

25 tacgagagggc taagactcag agttacgcat caaaccacgg gcgacgaata tttccgggttc 60
 26 atcacgcttc tccgagatta tgtctcaagc ggaagctttt ccaatgagat accactcttg 120
 27 cgtcagtcta cgatecccggt ctccgatgag caaagatttg tgttggtgga actcaccaat 180
 28 cagggggggag actcgatcac ggccgccatc gacgttacta acctgtacgt ggtggcttac 240
 29 caagcagggcg accaatccta ctttttgccg gacgcaccag acggcgcgga aaggcatctc 300
 30 ttcaccggga ccaccagatc ctccctccca ttcaccggaa gctacacaga tctggagcga 360
 31 ttcgcccgtc atagggacca gatccctctg ggtagagagg aactcattca atccgtctcg 420
 32 gcccttcggt ttcggggcag caacactcgt gcccaagctc gttcctttat cactctcatt 480
 33 cagatgatct ccgaggccgc cagattcaat cccatcttat ggagggctcg ccaatacatt 540
 34 agcagtgagg ggtcattttct gccagacacg tacattctcc agctggagac gagttggggg 600
 35 caacaatcca cgcaagttca gactcgacg gatggcggtt ttaataaacc aattcggttg 660
 36 actatatcca ctgggtgtctt cgtgacgttg agcaatgttc gcgacgtgat cgccagctta 720
 37 gcgatcatgt tgtttgatg cgaggaccgg ccatcttcct ct 762

on <223>
line

40 <210> SEQ ID NO: 2

41 <211> LENGTH: 254

42 <212> TYPE: PRT

43 <213> ORGANISM: Viscum album coloratum

44 <221> NAME/KEY: VARIANT

47 <400> SEQUENCE: 2

48 Tyr Glu Arg Leu Arg Leu Arg Val Thr His Gln Thr Thr Gly Asp Glu
 49 1 5 10 15
 51 Tyr Phe Arg Phe Ile Thr Leu Leu Arg Asp Tyr Val Ser Ser Gly Ser
 52 20 25 30
 54 Phe Ser Asn Glu Ile Pro Leu Leu Arg Gln Ser Thr Ile Pro Val Ser
 55 35 40 45
 57 Asp Ala Gln Arg Phe Val Leu Val Glu Leu Thr Asn Gln Gly Gly Asp
 58 50 55 60
 60 Ser Ile Thr Ala Ala Ile Asp Val Thr Asn Leu Tyr Val Val Ala Tyr
 61 65 70 75 80
 63 Gln Ala Gly Asp Gln Ser Tyr Phe Leu Arg Asp Ala Pro Asp Gly Ala
 64 85 90 95
 66 Glu Arg His Leu Phe Thr Gly Thr Thr Arg Ser Ser Leu Pro Phe Thr
 67 100 105 110

-> <2207

add this mandatory
 numeric identifier
 whenever <221>,
 <222>, or <223>
 is shown

RAW SEQUENCE LISTING

DATE: 10/01/2001

PATENT APPLICATION: US/09/627,165A

TIME: 14:01:51

Input Set : A:\seq.list.txt

Output Set: N:\CRF3\10012001\I627165A.raw

```

69 Gly Ser Tyr Thr Asp Leu Glu Arg Phe Ala Gly His Arg Asp Gln Ile
70      115      120      125
72 Pro Leu Gly Arg Glu Glu Leu Ile Gln Ser Val Ser Ala Leu Arg Phe
73      130      135      140
75 Pro Gly Ser Asn Thr Arg Ala Gln Ala Arg Ser Phe Ile Ile Leu Ile
76 145      150      155      160
78 Gln Met Ile Ser Glu Ala Ala Arg Phe Asn Pro Ile Leu Trp Arg Ala
79      165      170      175
81 Arg Gln Tyr Ile Ser Ser Gly Gly Ser Phe Leu Pro Asp Thr Tyr Ile
82      180      185      190
84 Leu Gln Leu Glu Thr Ser Trp Gly Gln Gln Ser Thr Gln Val Gln His
85      195      200      205
87 Ser Thr Asp Gly Val Phe Asn Asn Pro Ile Arg Leu Thr Ile Ser Thr
88      210      215      220
90 Gly Val Phe Val Thr Leu Ser Asn Val Arg Asp Val Ile Ala Ser Leu
91 225      230      235      240
93 Ala Ile Met Leu Phe Val Cys Glu Asp Arg Pro Ser Ser Ser
94      245      250

```

97 <210> SEQ ID NO: 3

98 <211> LENGTH: 762

99 <212> TYPE: DNA

100 <213> ORGANISM: Viscum album coloratum

101 <221> NAME/KEY: misc_feature ?

103 <400> SEQUENCE: 3

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104 tacgagaggc taagactcag agttacgcat caaaccacgg gcgaccaata tttcaagttc 60
105 atcacgcttc tccgagatca tgtctcaagc ggaagcttgt ccaatcaaata accactcttg 120
106 cggcagtcta ctgtccccgt ctccgatacg cagagatttg tgttggtgga actcagcaat 180
107 cagggggggag actcgatcac ggccgccatc gacgttacca atctgtacgt ggtggcttac 240
108 caagcaggca accaatccta ctttttgcgc gacgcacctc gcggcgcgga aacgtatctc 300
109 ttaccggca ccaccgatc ctctctccca ttcaacggaa gctaccctga tctggagcga 360
110 tacgccggac atagggacca gatccctctc ggtatagacc aactcattca atccgtctcg 420
111 gcccttcgtt ttccgggcag caacactcgt gcccaagctc gttcctttat catcctcatt 480
112 cagatgatct ccgaggccgc cagattcaat cccatcttat ggaggggctcg ccaatacatt 540
113 agcagtgggg ggtcatttct gccagacacg tacattctcc agctgggagac gagttggggg 600
114 caacaatcca cgcaagttca gactcgacg gatggcggtt ttaataaccc aattcgggtg 660
115 actatatcca ctggtgtctt cgtgacgttg agcaatgttc gcgacgtgat cgccagcyta 720
116 gcgatcatgt tgttgtatg cgaggaccgg ccattcttct ct 762

```

119 <210> SEQ ID NO: 4

120 <211> LENGTH: 254

121 <212> TYPE: PRT

122 <213> ORGANISM: Viscum album coloratum

124 <220> FEATURE:

125 <221> NAME/KEY: misc feature126 <222> LOCATION: 718

127 <223> OTHER INFORMATION: Xaa = any amino acid

129 <400> SEQUENCE: 4

```

130 Tyr Glu Arg Leu Arg Leu Arg Val Thr His Gln Thr Thr Gly Asp Gln
131 1      5      10      15
133 Tyr Phe Lys Phe Ile Thr Leu Leu Arg Asp His Val Ser Ser Gly Ser

```

RAW SEQUENCE LISTING

DATE: 10/01/2001

PATENT APPLICATION: US/09/627,165A

TIME: 14:01:51

Input Set : A:\seq.list.txt

Output Set: N:\CRF3\10012001\I627165A.raw

```

134          20          25          30
136 Leu Ser Asn Gln Ile Pro Leu Leu Arg Gln Ser Thr Val Pro Val Ser
137          35          40          45
139 Asp Thr Gln Arg Phe Val Leu Val Glu Leu Ser Asn Gln Gly Gly Asp
140          50          55          60
142 Ser Ile Thr Ala Ala Ile Asp Val Thr Asn Leu Tyr Val Val Ala Tyr
143 65          70          75          80
145 Gln Ala Gly Asn Gln Ser Tyr Phe Leu Arg Asp Ala Pro Arg Gly Ala
146          85          90          95
148 Glu Thr Tyr Leu Phe Thr Gly Thr Thr Arg Ser Ser Leu Pro Phe Asn
149          100         105         110
151 Gly Ser Tyr Pro Asp Leu Glu Arg Tyr Ala Gly His Arg Asp Gln Ile
152          115         120         125
154 Pro Leu Gly Ile Asp Gln Leu Ile Gln Ser Val Ser Ala Leu Arg Phe
155          130         135         140
157 Pro Gly Ser Asn Thr Arg Ala Gln Ala Arg Ser Phe Ile Ile Leu Ile
158 145         150         155         160
160 Gln Met Ile Ser Glu Ala Ala Arg Phe Asn Pro Ile Leu Trp Arg Ala
161          165         170         175
163 Arg Gln Tyr Ile Ser Ser Gly Gly Ser Phe Leu Pro Asp Thr Tyr Ile
164          180         185         190
166 Leu Gln Leu Glu Thr Ser Trp Gly Gln Gln Ser Thr Gln Val Gln His
167          195         200         205
169 Ser Thr Asp Gly Val Phe Asn Asn Pro Ile Arg Leu Thr Ile Ser Thr
170          210         215         220
W--> 172 Gly Val Phe Val Thr Leu Ser Asn Val Arg Asp Val Ile Ala Ser Xaa
173 225         230         235         240
175 Ala Ile Met Leu Phe Val Cys Glu Asp Arg Pro Ser Ser Ser
176          245         250
179 <210> SEQ ID NO: 5
180 <211> LENGTH: 768
181 <212> TYPE: DNA
182 <213> ORGANISM: Viscum album coloratum
183 <221> NAME/KEY: (misc_feature) ? <2207>
185 <400> SEQUENCE: 5
186 tacgagaggc taagactcag agttacgcat caaaccacgg gcgacgaata tttccggttc 60
187 atcaagcttc tccgagactc tgtctcaagc ggaagctttt ccaatgacat accgctcctg 120
188 cctccgtcaa tcccggcttc ctctgcgcag agatttgtgt tgggtggaact cacaaatcag 180
189 ttgggaaagt ggggaagactc gatcacggcc gccatcgacg ttaccaatct gtacgtggtg 240
190 gcttaccgaag caggcgacca atcctacttt ttgcgcgacg caccagacgg cgcggaaagg 300
191 catctcttca ccggcaccac cagatcctct cttcctttca acggaagcta cgctgatctg 360
192 gagcggtacg ccggacatag ggaccggatc cctctgggta gagagccact catacgatcc 420
193 gtctcggcgc ttgattatcc cggcggcagc acgcgcgccc aagccagttc cattattatc 480
194 gtcattcaga tgatctccga ggcggccaga ttcaatccca tcctatggag ggctcgccaa 540
195 tacattaaca gtggggtgtc atatcttcca gacgtgtaca tgctggagct ggaggcgagt 600
196 tggggccaac aatcgaccca agtccagcag tcgaccgatg gcgtttttaa taaccaatt 660
197 cggttgggta tatccaccgg caacttcgtg tggttgagca atgttcgcga cgtgatcgcc 720
198 agcttgggga tcatggtgtt tgtatgcagg gaccggtcat cttcccct 768
201 <210> SEQ ID NO: 6

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RAW SEQUENCE LISTING

DATE: 10/01/2001

PATENT APPLICATION: US/09/627,165A

TIME: 14:01:51

Input Set : A:\seq.list.txt

Output Set: N:\CRF3\10012001\I627165A.raw

202 <211> LENGTH: 256

203 <212> TYPE: PRT

204 <213> ORGANISM: Viscum album coloratum

205 <221> NAME/KEY: VARIANT ?

207 <400> SEQUENCE: 6

208 Tyr Glu Arg Leu Arg Leu Arg Val Thr His Gln Thr Thr Gly Asp Glu
 209 1 5 10 15
 211 Tyr Phe Arg Phe Ile Lys Leu Leu Arg Asp Ser Val Ser Ser Gly Ser
 212 20 25 30
 214 Phe Ser Asn Asp Ile Pro Leu Leu Pro Pro Ser Ile Pro Val Ser Ser
 215 35 40 45
 217 Ala Gln Arg Phe Val Leu Val Glu Leu Thr Asn Gln Leu Gly Lys Trp
 218 50 55 60
 220 Glu Asp Ser Ile Thr Ala Ala Ile Asp Val Thr Asn Leu Tyr Val Val
 221 65 70 75 80
 223 Ala Tyr Gln Ala Gly Asp Gln Ser Tyr Phe Leu Arg Asp Ala Pro Asp
 224 85 90 95
 226 Gly Ala Glu Arg His Leu Phe Thr Gly Thr Thr Arg Ser Ser Leu Pro
 227 100 105 110
 229 Phe Asn Gly Ser Tyr Ala Asp Leu Glu Arg Tyr Ala Gly His Arg Asp
 230 115 120 125
 232 Arg Ile Pro Leu Gly Arg Glu Pro Leu Ile Arg Ser Val Ser Ala Leu
 233 130 135 140
 235 Asp Tyr Pro Gly Gly Ser Thr Arg Ala Gln Ala Ser Ser Ile Ile Ile
 236 145 150 155 160
 238 Val Ile Gln Met Ile Ser Glu Ala Ala Arg Phe Asn Pro Ile Leu Trp
 239 165 170 175
 241 Arg Ala Arg Gln Tyr Ile Asn Ser Gly Val Ser Tyr Leu Pro Asp Val
 242 180 185 190
 244 Tyr Met Leu Glu Leu Glu Ala Ser Trp Gly Gln Gln Ser Thr Gln Val
 245 195 200 205
 247 Gln Gln Ser Thr Asp Gly Val Phe Asn Asn Pro Ile Arg Leu Gly Ile
 248 210 215 220
 250 Ser Thr Gly Asn Phe Val Trp Leu Ser Asn Val Arg Asp Val Ile Ala
 251 225 230 235 240
 253 Ser Leu Gly Ile Met Val Phe Val Cys Arg Asp Arg Ser Ser Ser Pro
 254 245 250 255

257 <210> SEQ ID NO: 7

258 <211> LENGTH: 797

259 <212> TYPE: DNA

260 <213> ORGANISM: Viscum album coloratum

261 <221> NAME/KEY: misc_feature ?

263 <400> SEQUENCE: 7

264 acgatgtaac ctgcactact tccgaaccta cggtagcggtt tgtgggtcga aatggcctgt 60
 265 gtctcgacgt cccagagggc gattaccacg atggaagtcg gatacagttg tggccctgca 120
 266 agtccaactc cgatcagaat cagctgtgga cgatcagaag ggatggaacc attcgatcta 180
 267 atggaaggtg cttgacgacc tatgggtata ctgcgggcag ctatataatg atctacgact 240
 268 gtaatagagg ggggtgggac cttactactt ggcagataag gggcaatgga atcatcctta 300
 269 atccaagatc catgatggtg atcggaaacac catccgggag ccgcggaacc cgtggcacta 360

RAW SEQUENCE LISTING

DATE: 10/01/2001

PATENT APPLICATION: US/09/627,165A

TIME: 14:01:51

Input Set : A:\seq.list.txt

Output Set: N:\CRF3\10012001\I627165A.raw

```

270 cttttactct gcaaactg ggttactcat taggacaggg ctggcttgcc agcaatgata 420
271 ccgctcctcg cgaggttaacc atatatggtt tccgcgatca ttgcatggaa actagtggag 480
272 ggaaagtgtg ggttgggact tgtgtgagtg gcaagcagaa ccaaagatgg gctttgtacg 540
273 gggatggttc cattcgcccg aaaccttacc aagaccaatg cctcacctct cagggagact 600
274 ccgttagatc cgtaaatcaat ttatttagct gcaccgctgg atcgccaagg caacgatggg 660
275 tatttaccaa taaagggggc attttgaatt taaagaatag gttggccatg gatgtggcgg 720
276 aatcaaatcc aagcctccgc cgaataatca tcttttcagt cactggaaat ccaaatcaaa 780
277 tgtggcttcc cgtgcc 797
280 <210> SEQ ID NO: 8
281 <211> LENGTH: 266
282 <212> TYPE: PRT
283 <213> ORGANISM: Viscum album coloratum
284 <221> NAME/KEY: VARIANT ?
286 <400> SEQUENCE: 8
287 Asp Asp Val Thr Cys Thr Thr Ser Glu Pro Thr Val Arg Phe Val Gly
288 1 5 10 15
290 Arg Asn Gly Leu Cys Leu Asp Val Pro Glu Gly Asp Tyr His Asp Gly
291 20 25 30
293 Ser Arg Ile Gln Leu Trp Pro Cys Lys Ser Asn Ser Asp Gln Asn Gln
294 35 40 45
296 Leu Trp Thr Ile Arg Arg Asp Gly Thr Ile Arg Ser Asn Gly Arg Cys
297 50 55 60
299 Leu Thr Thr Tyr Gly Tyr Thr Ala Gly Ser Tyr Ile Met Ile Tyr Asp
300 65 70 75 80
302 Cys Asn Arg Gly Gly Trp Asp Leu Thr Thr Trp Gln Ile Arg Gly Asn
303 85 90 95
305 Gly Ile Ile Leu Asn Pro Arg Ser Met Met Val Ile Gly Thr Pro Ser
306 100 105 110
308 Gly Ser Arg Gly Thr Arg Gly Thr Thr Phe Thr Leu Gln Thr Leu Gly
309 115 120 125
311 Tyr Ser Leu Gly Gln Gly Trp Leu Ala Ser Asn Asp Thr Ala Pro Arg
312 130 135 140
314 Glu Val Thr Ile Tyr Gly Phe Arg Asp His Cys Met Glu Thr Ser Gly
315 145 150 155 160
317 Gly Lys Val Trp Val Gly Thr Cys Val Ser Gly Lys Gln Asn Gln Arg
318 165 170 175
320 Trp Ala Leu Tyr Gly Asp Gly Ser Ile Arg Pro Lys Pro Tyr Gln Asp
321 180 185 190
323 Gln Cys Leu Thr Ser Gln Gly Asp Ser Val Arg Ser Val Ile Asn Leu
324 195 200 205
326 Phe Ser Cys Thr Ala Gly Ser Pro Arg Gln Arg Trp Val Phe Thr Asn
327 210 215 220
329 Lys Gly Ala Ile Leu Asn Leu Lys Asn Arg Leu Ala Met Asp Val Ala
330 225 230 235 240
332 Glu Ser Asn Pro Ser Leu Arg Arg Ile Ile Ile Phe Ser Val Thr Gly
333 245 250 255
335 Asn Pro Asn Gln Met Trp Leu Pro Val Pro
336 260 265
339 <210> SEQ ID NO: 9

```

→ C2207

Please
correct
any
subsequent
sequences
showing this
error.

FYI →

Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

VERIFICATION SUMMARY

DATE: 10/01/2001

PATENT APPLICATION: US/09/627,165A

TIME: 14:01:52

Input Set : A:\seq.list.txt

Output Set: N:\CRF3\10012001\I627165A.raw

L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:487 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:520 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:526 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:530 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:545 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:554 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:563 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14